May 29, 2001
Job Number: 1234-001
Directed Survey for Burrowing Owls for the Pegasus Power Project

MEMORANDUM FOR THE RECORD
1234-001.M01

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FROM: Sapphos Environmental, Inc.
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SUBJECT: **Draft: Results of a Directed Survey for Burrowing Owls for the Pegasus Power Project**

ATTACHMENTS:
1. Regional Vicinity
2. DGS Master Land Use Plan
3. Survey Area

INTRODUCTION

This Memorandum for the Record transmits the results of a directed survey for burrowing owls *(Speotyto cunicularia)* in support of the Pegasus Power Project. Directed surveys were conducted at the request of Paul, Hastings, Janofsky & Walker, LLP in support of the installation of an emergency power plant and a transmission line right-of-way. This document is intended to supplement the focused survey for burrowing owls (May 17 through 20, 2001) prepared by Campbell BioConsulting, Inc. (Ms. Tricia Campbell). Surveys were conducted by Sapphos Environmental, Inc. (Ms. Marie Campbell, Ms. Melisa Helton, Ms. Susan Shanks, and Mr. Peter Bloom) and by Mr. Stephen J. Myers on May 22, 23, 24, and 25, 2001.

SPECIES CONSIDERED

Burrowing owls are small to medium-sized raptors that are characterized by their use of burrows for nesting; adults range from 19.0 to 25.0 centimeters in length, and weigh approximately 150 grams. They have relatively long legs, a distinct yellow iris, brown plumage with buffy white spots on the back, and a white underside with brown barring (Haug, et al. 1993). Burrowing owls are found from southern Canada to southern South America (Johnsgard, 1988). They are resident largely throughout the southern United States; several populations inhabit the gulf coast of

Louisiana and the Florida panhandle (Johnsgard, 1988). In Southern California, burrowing owls are common in the Imperial Valley, rather common in agricultural areas within the Colorado River district, and generally scarce and decreasing elsewhere (Garrett and Dunn, 1981). Along coastal Southern California, the burrowing owl distribution is greatly reduced and localized. They occur primarily in agricultural and grassland areas of interior and coastal valleys, and in fewer numbers on bluffs along the immediate coast, but are resident on the Channel Islands (Garrett and Dunn, 1981). Burrowing owls from more northerly areas occasionally migrate into southern and coastal regions of Southern California during the winter (Garrett and Dunn, 1981). Preliminary data from the Los Angeles County Breeding Bird Atlas (Los Angeles Audubon Society, unpublished) indicates records of several breeding pairs of burrowing owl in the Antelope Valley, but no breeding has been documented on the coastal slope of Los Angeles County for records between 1995 and 1997 (Weimer, pers. comm.).

Burrowing owls prefer dry, open, treeless shortgrass plains, often in areas with little or no vegetation, which are often associated with burrowing mammals and rodents. Burrowing owls can also be found on golf courses, airports, cemeteries, in vacant lots in residential areas, and along shoulders of roadways. Typically, they occupy abandoned squirrel or rodent burrows and enlarge them by kicking backward with their feet and digging with their bills (Small 1994). They also often line their burrow entrances with dried cow or horse manure, which is believed to mask their scent (Haug, et al. 1993). Breeding usually begins during March or April in California, and during this time, burrowing owls can be observed near their burrows foraging and roosting. When approaching a burrow during the breeding season, the owls are known to fly from their ground perch and vocalize, thus making detection relatively easy.

PROJECT LOCATION AND LAND USE

The proposed project site is located within the boundaries of the California Institution for Men (CIM) and Ruben S. Ayala Park in the City of Chino, San Bernardino County, California and can be found on the USGS 7.5 minute series Prado Dam topographic quadrangle, Township 2S, Range 8W. Surrounding areas include the primary residential and business district of the City of Chino to the north, the Chino Airport to the east, the California Institution for Women and the Prado Basin to the south, and the community of Los Serranos to the west (Attachment 1, *Regional Vicinity).*

Currently, the State of California Department of General Services (DGS) has developed a Master Land Use Plan for portions of the CIM property (Attachment 2, *Department of General Services Master Land Use Plan*). The proposed project site is located outside the area under consideration by the Master Land Use Plan, however, a small portion of the proposed project site and a small portion of the transmission line is included within the Master Land Use Plan area.

METHODS

The survey area comprises 124 acres, including the original 20-acre proposed project footprint (located south of Eucalyptus Avenue between Central Avenue and Magnolia Avenue), the transmission line right-of-way, and the 150-meter buffer (Attachment 3, *Survey Area).* An alternative location for the proposed project footprint (located north of Eucalyptus Avenue and north of the original proposed project site) was also surveyed for burrowing owl and for sensitive and listed plants and wildlife. The results of the biological resources survey for the alternative proposed project location will the subject of a separate memorandum. Directed surveys for burrowing owl were conducted by Sapphos Environmental, Inc (Ms. Marie Campbell, Ms. Melisa Helton, Ms. Susan Shanks and Mr. Peter Bloom) on May 22, 23, 24 and 25, 2001.

Surveys were performed according to the *Burrowing Owl Survey Protocol and Mitigation Guidelines* prepared by the California Burrowing Owl Consortium (CBOC) (CBOC 1997). The protocol describes the surveys in three phases: Phase I, Habitat Assessment; Phase II, Burrow Survey; and Phase III, Burrowing Owl Surveys, Census, and Mapping. Sapphos Environmental, Inc. conducted a Phase I assessment during previous surveys and determined potential habitat to be present within the project area. The Phase II Burrow Survey was conducted by Sapphos Environmental, Inc. for the entire survey area (124 acres) (Attachment 3, *Survey Area*). The survey team walked the area in transects approximately 10 meters apart to ensure 100% visual coverage of the area, and all burrows and owls were recorded and mapped for Phase III.

RESULTS

This directed survey confirmed the presence of four pairs of nesting burrowing owls and their burrows (Attachment 3, *Survey Area).* Pair # 1 was observed nesting in a burrow located along a chain-link fence adjacent to a service road. Pair #2 and Pair #3 were also observed nesting, and both pairs were present at their burrows during the time of the survey. Pair # 4 was observed to be nesting; however, this pair is located outside the 150-meter buffer. Mr. Peter Bloom, a raptor expert, determined that other burrows located in the survey area were ground squirrel burrows, however, this other burrows may be used occasionally by burrowing owls in order to avoid predation.

Sapphos Environmental, Inc. (Ms. Melisa Helton and Mr. Peter Bloom) also confirmed the presence of a red-tailed hawk *(Buteo jamaicensis)* nest and a Cooper's hawk *(Accipiter cooperii)* nest in the nursery area (Attachment 3, *Survey Area).* All red-tailed hawk juveniles were observed away from the nest rooting nearby. Mr. Bloom determined that the red-tailed hawk juveniles would disperse before the time of construction of the power plant. The survey team also observed Cooper's hawk nestlings, and they appeared to be approximately 1 ½ weeks old during the survey on May 24, 2001.

RECOMMENDATIONS

Recommendations for resolving issues related to nesting burrowing owls, the red-tailed hawk nest, and the Cooper's hawk nest are based on discussions with Mr. Peter Bloom, raptor expert, Mr. Loren Hayes, USFWS, and Mr. Jeff Drogenson, CDFG. These recommendations include:

Avoidance Recommendations

- Relocation of Pegasus Power Plant to a location north of Eucalyptus Avenue (confirmed with Ron Small), thus avoiding nesting burrowing owl pair #1, one nesting pair of Cooper's hawk, and one nesting pair of red-tailed hawk
- Delay trenching in portion of the transmission line adjacent to Edison Avenue until after July 2, 2001 to allow existing nesting burrowing owl pairs #2 and #3, adjacent to proposed trenching area, to successfully complete breeding (allow young to fledge and disperse from the nest)
- Designate all occupied nest sites adjacent to the construction zone as 'off limits' to construction equipment and personnel in the project plans and specifications
- On-site briefing with construction personnel
- Monitoring during construction to ensure burrowing owl safety
- Ensure compliance with the California Department of Fish and Game guidelines for burrowing owls

On-Site Mitigation

- In the event that impacts cannot be avoided, appropriate on-site mitigation measures should be implemented, if feasible. These measures would include installing alternate artificial burrows or maintaining natural burrows approximately 50 meters from the impact area. Successful on-site mitigation is dependent on appropriate foraging habitat. On site mitigation shall be coordinated with a recognized raptor expert and with the CDFG and USFWS.

Off-site Mitigation

- In the event that impacts cannot be avoided and on-site mitigation is not feasible or appropriate, then impacted birds would be relocated to available off-site habitat. Relocation would be conducted according to *Burrowing Owl Survey Protocol* by a qualified biologist and coordinated with USFWS and CDFG.

Should there be any questions regarding this memorandum, please contact Ms. Marie Campbell, Dr. Brad Blood, or Ms. Melisa Helton at (626) 683-3547.

The California Burrowing Owl Consortium (CBOC). 1997. *Burrowing Owl Survey Protocol and Mitigation Guidelines.* J. Raptor Res. Rep. 9:171-177.

Garrett, K., and J. Dunn. 1981. *Birds of Southern California: Status and Distribution*. Los Angeles Audubon Society.

Haug, E.A., B.A. Milsap, and M.S. Martell. 1993. "Burrowing Owl." *Birds of North America.* Ed. A. Poole and F. Gill.

Johnsgard, Paul A. 1988. *North American Owls: Biology and Natural History.* Washington, D.C.: Smithsonian Institution Press.

Small, Arnold. 1994. *California Birds: Their Status and Distribution*. Vista, CA: Ibis.

Weimer, Mark, Coordinator, Los Angeles Breeding Bird Atlas. *Personal Communication* with Sapphos Environmental, Inc., February 1998.

ATTACHMENT 1
REGIONAL VICINITY

ATTACHMENT 2

ATTACHMENT 3
SURVEY AREA